U.S. Department of Labor

Office of Administrative Law Judges
800 K Street, NW, Suite 400-N
Washington, DC 20001-8002
(202) 693-7500
(202) 693-7365 (FAX)

In the Matter of	:	
	:	
LOIS J. COHEN,	:	
Claimant,	:	
	:	
v.	:	**Case No.: 2000-LHC-0246**
	:	
PRAGMA CORPORATION/	:	**OWCP No.: 02-125596**
CIGNA INSURANCE CO.,		:
Employer/Insurance Carrier, and	:	
	:	
DIRECTOR, OFFICE OF WORKERS'	:	
COMPENSATION PROGRAMS,	:	
Party-in-Interest.	:	

John C. Lynch, Esq.
Macleay, Lynch, Gregg & Lynch, P.C., Washington, D.C.
For the Claimant

Kenneth M. Simon, Esq.
Flicker, Garelick & Associates, New York, NY
For the Employer/Insurance Carrier

Before: PAMELA LAKES WOOD
Administrative Law Judge

DECISION AND ORDER DENYING BENEFITS

The instant case involves a claim brought under the Defense Base Act, 42 U.S.C. § 1651 ***et seq.***, an extension to the Longshore and Harbor Workers' Compensation Act ("the Act"), 33 U.S.C. § 901 ***et seq.***, pursuant to 33 U.S.C. § 919(d) and 20 C.F.R. Parts 701 to 704. Claimant Lois J. Cohen ("Claimant") claims to have sustained pulmonary fibrosis (diagnosed as usual interstitial pneumonitis) with multiple complications as a result of exposure to environmental pollutants when she was employed as an attorney by Pragma Corporation, Inc. ("Employer") in Almaty, Kazakhstan between November 1997 and May

1998. Employer is insured by Cigna Property and Casualty Insurance Company ("Carrier").

A hearing in this matter was held before the undersigned administrative law judge on October 27, 2000, in Washington, DC. The Claimant was the only witness to testify. (Tr. 46-96).[1] At the hearing, Claimant's Exhibits A through H1, H2, and I1 through I7,[2] and Employer's Exhibits 1 through 4[3] were admitted into evidence. (Tr. 9-12). Following the hearing, the record was left open for the transcripts of the depositions of Drs. Wagner and Friedman and for submission of post hearing briefs. Under cover letter of November 1, 2000, counsel for Claimant submitted the deposition of Dr. Randall Wagner taken on October 26, 2000 (including one exhibit) which has been marked as Claimant's Exhibit J ("CX J"). The deposition of Dr. Carl Friedman and two exhibits, which have been marked as Claimant's Exhibit K ("CX K"), were later submitted.[4] Claimant's Brief was filed on

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[1] As used herein, "CX" followed by an exhibit letter and/or number (and page number, where pertinent), refers to Claimant's Exhibits; "EX" followed by an exhibit number (and page number, where pertinent) refers to Employer's Exhibits; and "Tr." refers to the Transcript of the hearing held on October 27, 2000. Claimant Lois J. Cohen will be referred to as "Claimant," Pragma Corporation will be referred to as "Employer", and Cigna Property and Casualty Insurance Company will be referred to as "Carrier." Employer and Carrier will be collectively referenced as "Employer" or "Employer/Carrier."

[2] Claimant's Exhibits A through F appear in Binder A at pages 4 through153. Binders G1 (with subparts A and B), G2 (with subparts C, D, and E), and G3 (with subparts F, G, and H) consist of Claimant's Medical Treatment Records (with George Washington University hospital records appearing in Binder G1 at pages 157 through 717; medical records from Drs. Randall Wagner, James H. Graeter, and Allen Greenlee appearing in Binder G2 at pages 721 through 921, with inserted pages 784B and 785A; and medical records from Dr. Richard Edelson, Vienna Medical Records, and Dental Records appearing in Binder G3 at pages 925 through 1032). Binder H1 consists of an itemization of medical bills and receipts, appearing at pages 1050 through 1433 (with summaries at pages 1034 through 1049). Binder H2 consists of supplemental exhibits, including photographs, additional dental records, Claimant's February 19, 1999 and April 5, 1999 notices of claims, Employer's April 9, 1999 acknowledgment of claim, Claimant's April 12, 1999 Form LS-203 claim, and Employer's April 21, 1999 Form LS-207 controversion, appearing at pages 1436 to 1482. Claimant's Exhibits I1 through I7 are photographs.

[3] Employer's Exhibits 1 and 2 are Dr. Carl B. Friedman's July 30, 2000 report (pages 1 through 7) and Dr. Friedman's curriculum vitae (pages 8 through 13), respectively; Employer's Exhibit 3 (page 14) is Claimant's registration form with Dr. James H. Graeter; and Employer's Exhibit 4 (pages 15 to 33) is medical records from Dr. Arthur I. Kobrine.

[4] Upon review of the exhibit mailed to the undersigned under the November 1, 2000 cover letter, it was discovered that a copy of the hearing transcript was attached to the cover sheet rather than Dr. Friedman's deposition. My office contacted counsel for Claimant and a copy of the deposition was submitted under cover letter of April 13, 2001. The exhibits to the deposition

December 1, 2000 and Employer/Carrier's Brief was filed on December 5, 2000. Claimant's Exhibits J (including Exhibit 1) and K (including Exhibits 1 and 2) are admitted into evidence and the record is now closed. **SO ORDERED.**

The findings and conclusions which follow are based upon a complete review of the record in light of the submissions of the parties and the applicable statutory provisions, regulations, and pertinent precedent.

MOTION TO EXCLUDE

At the hearing, over Employer's objection, I admitted into evidence Claimant's Exhibit D ("CX D") (Binder A, pages 34 to 99), consisting of newspaper articles and research documents from the C.I.A. and United States Energy Information Administration sites on the world wide web. In part, my ruling was based upon the fact that Claimant's expert, Dr. Wagner, reviewed them prior to his deposition and took them into consideration in rendering his final opinion, thereby obviating a hearsay objection. However, in so ruling, I indicated that counsel could renew the objection following the hearing. (Tr. 38 to 43). Employer has done so and renewed its motion to exclude CX D in its post-hearing brief. Essentially, Employer argues that the records relate to other parts of the former Soviet Union and do not specifically address the issue of the conditions in Almaty, Kazakhstan, where Claimant was employed, and bases its objections on the grounds of relevance and undue prejudice. Employer also argues that the medical experts placed no reliance upon these records, citing their depositions (CX J and CX K). (Post-Trial Brief of Employer and Carrier at pages 4 to 6.)

In reviewing the matter again, I have decided that the documents should be admissible. Specifically, I find that Employer's objections on relevance should go to the weight, rather than the admissibility, of the evidence, and Employer has not been in any way prejudiced. I will take Employer's objections into consideration when weighing the probative value of Claimant's Exhibit D. Accordingly, Employer's motion to exclude is DENIED. **SO ORDERED.**

STIPULATIONS

The parties reached the following Stipulations:

1. There was an employer/employee relationship between Claimant Lois Cohen and Employer Pragma Corporation at the time of her alleged work injury.

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were submitted separately by counsel for the Employer under cover letter of November 7, 2000 and have been incorporated as a part of CX K.

2. There is jurisdiction under the Defense Base Act and Longshore Act over the instant claim.

3. Employer was provided timely notice of this claim.

4. Claimant's average weekly wage exceeds the maximum allowable average weekly wage for purposes of this worker's compensation claim under the Longshore Act/Defense Base Act.

5. Claimant filed a timely claim.

6. Claimant fully cooperated in the resolution of this claim.

CX B; Tr. 34, 43.)

ISSUES

The threshold issue before me is whether Claimant's pulmonary fibrosis may be deemed to have arisen out of the course of her employment in Almaty, Kazakhstan, by operation of the presumption under section 20(a) of the Longshore and Harbor Workers' Compensation Act, 33 U.S.C. § 920(a). If so, I must determine whether Employer has rebutted the presumption. If rebuttal is established, I must address the issue of causation based upon all of the evidence.

In the event that Claimant can establish a causal link between her employment and her pulmonary fibrosis, additional issues concern whether Claimant has established that her multiple complaints (including a right hip condition and replacement, shingles (herpes zoster), ulnar nerve neuropathy and surgery, coronary artery disease, carbon stent implant, facial disfigurement ("moon face"), and left hip condition) were related to or aggravated by either the pulmonary fibrosis or Prednisone treatment for the pulmonary fibrosis.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Facts

Claimant's Testimony

Claimant was a credible witness. She testified that she was born on December 7, 1941 and was 58 years old at the time of the hearing.[5] (Tr. 47). She graduated from Emory Law School in August 1983 and, following eight years of work in the brokerage

[5] Claimant's stated age was mistranscribed as "38". (Tr. 46).

area, she started doing what she described as “this international kind of work.” (Tr. 47). Her first assignment was in Kiev for three months in late 1996, after she returned home for a couple of months she went to Bulgaria for seven months, and after she came home from that she left for Kazakhstan for a 12 to 15 month assignment. (Tr. 47-48). She testified that prior to November 1997, when she began working for Pragma Corporation (based in Falls Church, Virginia), she was in good health, except that she started having pain in her right leg in 1996, which led to disc surgery in July 1996. (Tr. 48, 51). She was assigned to work in Kazakhstan as a Senior Legal Advisor to the Securities Commission that had recently been established in that country. (Tr. 49). Initially, she was hired to be their advisor in Kyrgyzstan, and after a couple of days in Almaty she was transferred to Kyrgyzstan, where she worked for two weeks. (Tr. 50). At that point she was transferred back to Almaty, which is about a three hour drive away. (Tr. 50).

Claimant testified that as they approached Almaty, she noticed a “huge black cloud, like you couldn’t see through” and when she asked the driver what it was, he said, “That’s Almaty.” (Tr. 50). She testified that it was only later that she learned about “leftover nuclear problems and radiation and pesticides, pollution.” (Tr. 50).

Claimant first developed symptoms in late March or early April, 1998, when she started to have chronic diarrhea. (Tr. 50-51). After a couple of weeks she contacted the American doctor there (Dr. Bassett) who attributed it to “the water or the food or whatever” and he gave her an antibiotic which helped, but as soon as she went off the antibiotic, which she received as part of 10-day treatments, the diarrhea started again. (Tr. 51, 53). At that point, the doctor said he could not culture what she had and even if he could, he would not have the drugs to treat it, so at the end of April he recommended that she return home. (Tr. 51). In retrospect, she realized that she was also experiencing pulmonary problems. (Tr. 51). When her friend arrived around April 1 to work with her, they used to go swimming every night at her hotel, and she noticed difficulty swimming the 10 to 20 laps, and she would be dizzy when she got out of the pool (Tr. 51-52). When her friend got off the plane, the friend told her that she looked yellow. (Tr. 52). She also noticed herself going slower and slower when walking up stairs, which she took to her apartment and to the third or fourth floor of the U.S. A.I.D. mission where she worked, and she took the elevators whenever she could. (Tr. 52). She attributed the problems to her leg. (Tr. 52). However, she indicated that she also experienced shortness of breath, which was “really bad” while swimming. (Tr. 52).
Although the head of the U.S. A.I.D. mission did not want her to leave, the project director (Mohammed [Fatoorechie]) allowed her to leave due to her illness, and she finally got on a plane in May. (Tr. 53). She was supposed to return to Kazakhstan two weeks later, as she was accustomed to do after visiting her daughter and granddaughter, which she did approximately every three months. (Tr. 53-54).

Upon her return, Claimant saw her internist, Dr. Greenlee [mistranscribed as Greenly] for “horrible cystitis” as well as the diarrhea, and she was “taking stool cultures

every day." (Tr. 54). In late May of 1998, Dr. Greenlee referred her to Dr. Moscowitz due to her leg pain, and she had her hips x-rayed. (Tr. 54-55). Dr. Moscowitz told her that she needed hip surgery because "the right hip is going" but that she could wait until her assignment in Kazakhstan was finished. (Tr. 55).

One Saturday (June 6, 1998), when her other daughter [Laura] from Atlanta came to visit her and Claimant went to the airport to pick her up, Claimant was coughing and could not catch her breath, and she went to visit the emergency room at GW [George Washington University] Hospital. (Tr. 54). She complained that she could not breathe and she was put on oxygen. (Tr. 55). She does not remember the next 12 days, aside from some pain when they were trying to get blood. (Tr. 56). When she awoke, all three of her daughters were at the hospital, which made her realize it was serious. (Tr. 56). She met Dr. Randall Wagner, a pulmonary specialist, shortly afterwards, and he became her treating physician. (Tr. 57-58). Dr. Wagner told her that her condition, pulmonary fibrosis, was not caused by cigarette smoking. (Tr. 58). After the lung biopsy, Dr. Wagner put her on very high-dose Prednisone, from 80 mg.[6] for two months, then 60, then 40, and then 20, right before her hip surgery. (Tr. 58-59). It was her understanding that she was put on Prednisone because the lung biopsy showed scarring and inflammation on her lungs. (Tr. 59). It was also her understanding that the reduction in dose was made because Dr. James Graeter [mistranscribed as Grader], the orthopedic surgeon, would not operate on her if she were on a higher dose, because the Prednisone would destroy what was left of the hip. (Tr. 59-60).

After her discharge from the hospital, Claimant was sent to a full-time care facility for a week, where she continued on Prednisone. (Tr. 61). She discharged herself and retained full-time nursing at home. (Tr. 62).

After she was home for a week, she experienced excruciating pain going all the way down her left arm, beginning at her neck, followed by boils extending down the arm, and the nurse told her that she had shingles. (Tr. 63-65). She has some scarring on that arm, and at the hearing I observed a depigmented area of scars on the upper left arm, extending down the forearm. (Tr. 64). Dr. Wagner gave her a morphine (Fetinol) patch for the pain. (Tr. 65).

In September or October of 1998, she experienced dental problems and she started having pain in her gums where her teeth had been capped. She also observed separation from the gums. (Tr. 65). In September and October 1999, her dental problems worsened, shortly before she was supposed to leave for Sarajevo. (Tr. 76). The teeth that

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[6] I could not find a reference to 80 mg. of Prednisone in the medical records. See the Routine Medication Record, CX G1, p. 176, 624 (showing Prednisone dose of 60 mg. daily from June 15 to 18, as ordered on June 15, 1998) and the June 18, 1998 discharge summary CX G1, p. 466 (showing a Prednisone dose of 60 mg. for 6 months).

Dr. Nielsman had done the previous year had rotted out and she needed to have root canals, causing her to lose four of the eight teeth on her bottom jaw and requiring the whole bridge to be redone. (Tr. 76-77). She is still experiencing mouth and dental problems, involving the top of her mouth and ten or eleven teeth. (Tr. 82).

She also had the right hip surgery [in October 1998], which consisted of replacing her hip with metal. As she understood it, "the cortisone had really destroyed whatever was left in the hip or [her] ability to walk, and it was crucial to all the doctors that [she] be able to start walking around and getting a little exercise. (Tr. 66). She returned home and had to hire nursing care, because she could not go down the stairs although she could walk with a walker. (Tr. 66). It was her understanding that Dr. Graeter has diagnosed her as temporarily totally disabled due to her hip, because she cannot walk very far. (Tr. 82).

When Claimant woke up from the hip surgery, the shingles (herpes zoster) pain was gone, but it was replaced with "horrible itching." (Tr. 69). She went to see Dr. Edelson, a neurologist, who put her on Neurontin, which she took daily over a two-year period, tapering down shortly before the hearing, although she was still taking it. (Tr. 69, 76). She is now taking one or two Dilantin a day instead of six. (Tr. 89). The shingles blew up again when she was in Georgia, and she was treated with Celebrex or some other anti-inflammatory. (Tr. 88-89). However, she continued to have problems with numbness in that arm and hand, leading to ulnar nerve surgery in February 2000, when she temporarily came home from Bosnia, returning in approximately mid-March. (Tr. 77-78).

While in Bosnia, Claimant experienced heart problems, first noticing pain and pressure in her heart around May 14 [2000] (Mother's Day), continuing nightly for a week and making it difficult for her to breathe. (Tr. 79). She was airlifted out of the hospital after about five or six days, and she had an angiogram in Vienna, where she was hospitalized for four days, with a stint implanted. She was required to wait two to two and one half weeks before she could travel back to Sarajevo, which she did around June 6, 2000. (Tr. 79-80).

Claimant had finally gone off Prednisone therapy in mid-February [1999], and at that time she left to go to Latvia, as a legal advisor concerning the stock exchange, because she had bills to pay. (Tr. 68, 88). At that time, she first learned about the Defense Base Act. (Tr. 69-70). Pragma employees never told her about those benefits, prompting her to write to Mohammed Fatoorechie on February 19, 1999; her letter appears at CX H2, p. 1468-69. (Tr. 70-71). She came back from Latvia in April 1999. (Tr. 75-76). Her next job overseas was for Barron's Group in Tbilisi, Georgia, for three months, beginning in mid-June 1999, doing the same kind of work. (Tr. 76). Her last assignment was in Sarajevo, Bosnia, beginning on October 1,1999, where she worked as a Chief of Party for a large project which involved establishing a securities commission, for a year (as extended). (Tr. 78-79, 90-91). Her work in Sarajevo did not require anything physical, as a driver took her

to work and it was a desk job. (Tr. 95-96). In all, Claimant has been unable to work 14 months out of the past 28 months, since her return from Kazakhstan. (Tr. 82).

Claimant has also noticed a difference in her physical appearance, as reflected by seven photographs appearing in CX I7 (taken in June 1996), CX I6 (taken in November or December 1996), CX I5 (taken in July 1997), CX I4 (taken in December 1998), CX I2 and I3 (pre-surgery photographs taken in June 1999) and CX I1 (taken following plastic surgery), as well as CX H2, pages 1437 through 1438 (taken in December 1998) and CX H2, p. 1439 (taken in September 1999, after the plastic surgery.) (Tr. 74-75). Claimant had plastic surgery in early May, 1999. (Tr. 75).

At the time of the hearing, Claimant complained of her left hip pain and indicated that she could barely walk and will require surgery. She had not previously had problems with the left hip. (Tr. 81). As far as her breathing is concerned, she will think she is breathing fine but will be unable to walk up a hill or climb stairs, particularly if she has to lift anything heavier than three pounds. (Tr. 81). She plans to have dental surgery and left hip surgery when she has the money to pay for it. (Tr. 92-93). The hip surgery was scheduled for October 30 and was canceled. (Tr. 92). The surgery would be covered by health insurance, but she is concerned about the need for nurses for six weeks after the surgery. (Tr. 94-95).

Claimant verified that the medical bills in Binder H1 reflect her out of pocket expenses for medical care she has received since her return from Kazakhstan in late May 1998. (Tr. 82-83; ***see also*** CX H1).

Claimant does not feel that she is now capable of returning to work and she expressed concern about the availability of treatment for her heart problems overseas, including Sarajevo, where they lacked the capability of checking her cholesterol monthly. (Tr. 83-84). She believes both her hip and her heart are disabling, but the dental condition is not. (Tr. 93). Claimant feels that her hip condition has deteriorated from September 9 until the date of the hearing, October 27, 2000. (Tr. 95). If she had a driver such as she had in Sarajevo, she could probably do the legal work she was doing, but she is concerned about her heart. (Tr. 96).

On cross examination, Claimant admitted to having been on several different drugs on May 28, 1998, including low-dose Prozac for pain, Voltarin as an anti-inflammatory, Percodan for pain, and hormone replacement therapy. (Tr. 86-87). They were prescribed by Dr. Greenlee or Dr. Charott, the pain management doctor. (Tr. 86). She took the Voltarin for right leg pain. (Tr. 87). Claimant still smokes cigarettes, having smoked on and off for forty years (less four years when she was on Proloxil and quit), at up to a pack a day, but she is down to half a pack. (Tr. 87).

Claimant had a chest x-ray in June 1996, before they did the back surgery, and it was her understanding that it was normal. (Tr. 97). She may have had a physical before her first job, in Kiev. (Tr. 97).

Medical Records and Reports

Numerous medical records and other documents have been received into evidence, as noted above, and only ones of particular significance will be discussed here.

Records Predating Hospitalization

Medical records of Claimant's treating physician, **Allen Greenlee, M.D.** predate her hospitalization for pulmonary fibrosis in June 1998. (CX G2, p. 824 to 921). Dr. Greenlee's records also relate to Claimant's treatment after her discharge from the hospital (***Id.***, p. 825A, 826, 829-32, 841, 843, 847, 887, 889, 902, 907, 911).

Dr. Greenlee's records relating to Claimant begin in January 1996, when a herniated disc was noted, and include copies of records relating to her surgery (diskectomy) in July of the same year and subsequent treatment for back pain, including epidural nerve blocks. (***Id.*** at 867-79, 885-886). In a progress note of August 1996, it was noted that the Claimant was on Diflunisol (?), Prevacid, and Prempro, that she had elevated cholesterol, and that she smoked approximately one pack of cigarettes per day. (***Id.*** at 878). Dr. Greenlee gave the Claimant a flu shot in October 1997 (prior to her departure for Kazakhstan) and noted that she was on various medications (Percodan, Prozac, Prevacid, Vitron, Prempro, Valium, and Darvocet).[7] (***Id.*** at 920). The note of February 9, 1998 (apparently when she was on leave from Kazakhstan), which is partly illegible, recorded that she had complained of increased back pain and an epidural block was considered, but that Claimant was going back to Eastern Europe. Although not entirely legible, the note also mentions something about Claimant wanting a hepatitis A shot. (***Id.*** at 920).

A note of May 26, 1998 (appearing in Dr. Greenlee's medical records but signed illlegibly) reflects that the Claimant presented to the clinic with multiple complaints: (1) diarrhea accompanied by severe epigastric pain, bloating, and increased flatulence dating from approximately two months before in Kazakhstan, which condition was treated successfully with unknown medications but returned upon discontinuance of the medications; (2) back pain with a shooting pain down the left leg, for which Claimant requested a renewal of her Percodan prescription; and (3) chronic cystitis, with dysuria

[7] Claimant had been on estrogen (Prempro) since 1995. (CX G2, p. 886, 896, 921). The records also reflect that Percodan and Prozac were prescribed for back pain. (***Id.***, p. 868, 920.) However, some of the medicine names are barely legible. ***Id.***

and polyuria. A stool culture and urine culture were planned; Claimant was referred to Dr. Moskovitz and Dr. Cherrick for the back pain and sciatica; and Claimant was prescribed Prevacid (?) for the gastrointestinal problems and Pyridium for the cystitis. (***Id.*** at 864, 890). The urine culture report of May 28, 1998 was negative for pathogens and the stool culture report of June 3, 1998 found no ova and parasites and no salmonella, shigella, or campylobacter was isolated. (***Id.*** at 861-63).

Arthur I. Kobrine, M.D., a neurological surgeon, treated the Claimant in 1996 for right lumbar radiculopathy and performed a right lumbar laminectomy and diskectomy on July 18, 1996. He also treated her for acute lumbar strain following a slip and fall in August 1996 and for right leg/groin/knee pain. (EX 4).

George Washington University Medical Center

Claimant was admitted to the **George Washington University Medical Center** on June 6, 1998 and discharged on June 18, 1998. (CX G1, p. 457-672; 159-198). According to the discharge summary dictated by **Trang Do, M.D.** and signed by **Allen Greenlee, M.D.**, the discharge diagnoses were usual interstitial pneumonitis with pulmonary fibrosis, degenerative joint disease of the hip, diarrhea, and anemia. (***Id.*** p. 464-67.) A computer listing indicated final diagnoses of postinflammatory pulmonary disease (principal diagnosis) as well as respiratory complication, anemia, primary localized osteoarthritis of pelvic area/thigh, and diarrhea. (***Id.*** p. 457). The discharge summary indicated the following history:

> HISTORY OF PRESENT ILLNESS: The patient is a 56-year old white female with no significant past medical history presenting to the emergency room complaining of 1-week history of upper respiratory infection with a nonproductive cough and shortness of breath of 2-3 days' duration. The patient recently returned from Russia after a 7-month stay for evaluation of chronic diarrhea. While in Russia, the patient reports shortness of breath and dyspnea on exertion initially attributed to her bouts of diarrhea. Then 2-3 days prior to her admission, she developed worsening shortness of breath, subjective fevers and chills, and a nonproductive cough. The patient reports that her diarrhea has resolved since her return to the United States for the last 2 weeks.
>
> PAST MEDICAL HISTORY:
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> 1. Chronic diarrhea, evaluation in Russian was nonrevealing; however, each bout resolved with metronidazole.
> 2. Chronic lower back pain, recently diagnosed with arthritis of the right hip requiring total hip replacement. She is status post surgery on her back at L3 and L4.

(***Id.*** p. 464-66). A 40-pack-year smoking history was noted, as was an allergy to penicillin. (***Id.***). A bronchoscopy biopsy was inconclusive, leading to an open-lung biopsy of the right lower lung which "was consistent with the usual interstitial pneumonitis with pulmonary fibrosis." (***Id.; see also*** p. 548-50, 713-15.) The diagnosis on the June 12 surgical pathology report for the June 10, 1998 wedge biopsy[8] by **Arnold M. Schwartz, M.D.** was "active and organizing interstitial pneumonitis consistent with exudative and proliferative phase of diffuse alveolar damage (DAD)" and it was noted that the routine stains had identified no granulomas, fungi or viral inclusions." [9] (CX G1, p. 548-50, 713-15). At that point, the Claimant was treated with high dose Solu-Medrol for three days and then switched to Prednisone.[10] (***Id.*** p. 464-66, 176). Medications on admission were noted to be Prozac, Percodan, Prevacid, Prempro, and Valium, and the discharge medications were the same with the addition of Prednisone at a dose of 60 mg. orally per day, to be continued for approximately 6 months. (***Id.*** p. 464-66).

In a report of July 10, 1998, **Randall Wagner, M.D.** noted that he had seen the Claimant that date in follow up for her interstitial lung disease, which he characterized as "Stable/improving interstitial pneumonitis." He recommended continuing the Prednisone at 40 mg. per day and reducing it to 30 mg. per day if the pulmonary function tests were good. He also recommended a hip replacement after three months of therapy. It was noted that Claimant had developed vesicular lesions on her left arm in the antecubial space and was started on famciclovir for Herpes Zoster, and that she tolerated the medication poorly with anorexia and nausea, but that the condition was resolving. It was also noted that she had not returned to smoking. (CX G1, p. 716-17).

Progress notes indicate that Claimant was treated on an outpatient basis at the Ambulatory Care Center at George Washington University Hospital on July 10, 1998, August 14, 1998, and September 25, 1998 (when her Prednisone was decreased to 20 mg.) (CX G1, p. 691-93). An October 2, 1998 letter from Dr. Wagner to Dr. James Graeter noted that she had Idiopathic Pulmonary Fibrosis and had "received 2 months of Prednisone 60-40 mg day, and has been tapered to 20 mg daily over the past month," noted bibasilar fine crackles on examination, and indicated that she was "as ready as she will ever be for the hip replacement." (CX G1, p. 690).

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[8] Although the pathology report states that the specimen was taken on June 11, 1998, the surgery was performed on June 10 according to the operative report. (CX G1, p. 549-52).

[9] Tests for tuberculosis (PPD and cultures) were also negative. (CX G1 p. 481-83, 575-76.)

[10] The first Prednisone order of record is dated June 15, 1998. (CX G1, p. 176, 624; ***compare*** p. 465-66).

Discharge summaries from the George Washington University Medical Center of October 19, 1998 and October 23, 1998, by **James Graeter, M.D.** and **Philip Marion, M.D.**, respectively, reflect that Claimant had a history of idiopathic pulmonary fibrosis diagnosed in June 1998 by lung biopsy, that a total right hip replacement (due to right hip degenerative joint disease) was performed on October 14, 1998, that she was transferred to rehabilitation services on October 19, and that she was discharged on October 23. In the latter discharge summary, it was noted that she had a history of L1-2 discectomy in 1996 and chronic lower right extremity pain for a number of years, a history of half a pack of tobacco for one year (having quit three months previously), and no history of alcohol abuse. (CX G1, p. 306-07, 201-02; ***see also id.*** p. 340-42 [operative report by Dr. Graeter]). The October 14, 1998 ICU admission note by **Michael S. Salem, M.D.**, indicated that Claimant "has had multiple intensive care unit stays for this pulmonary fibrosis, and is always on the border of requiring significant pulmonary intervention", that she was on home oxygen therapy, and that she was "critically ill." (***Id.*** p. 333). The transfer summary of the same date reflects that she was being treated, ***inter alia***, with Prednisone at an oral dose [po] of 20 mg. daily [qd]. (***Id.*** p. 330; ***see also id.*** p. 264, 398-99, 423, 445).

George Washington University outpatient notes reflect that Claimant was seen on an **outpatient** basis on October 30, 1998, November 2, 1998 (when she was admitted to the emergency room), December 4, 1998, and January 28, 1999, in addition to a telephone conversation on January 8, 199[9].[11] (CX G1, p. 684-89.[12])

Claimant was admitted to the **emergency room** for shortness of breath on November 2, 1998 and discharged the following day. (***Id.*** p. 425-56, 685-88). A November 2, 1998 lung ventilation and perfusion study by **Carmen R. Britt, M.D.** was normal, with no evidence of pulmonary emboli. (***Id.*** p. 239). As discussed below, a chest x-ray was within normal limits. (***Id.*** p. 433, 449-50). Prednisone dose was 20 mg. on November 3, 1998. (***Id.*** p. 453).

Following that admission, the Claimant's Prednisone dose was reduced. A clinic note of December 4, 1998 by **Dr. Wagner** listed the impression of "Stable usual interstitial pneumonitis, now on a tapering dose of steroids" and indicated that if the DLCO (diffusing capacity) remained in the 40% of predicted range, the Prednisone could be lowered to 10 mg. per day and they could "begin in earnest to taper her steroids." (***Id.*** p. 683). The January 28, 1999 note prescribed Prednisone at 5 mg, then 2.5 mg. (***Id.*** p. 679). Dr. Wagner's January 29, 1999 report indicated that Claimant was in the final stages of

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[11] Although the reference is to "1/8/98", it is clear from the reference to "12/9/98" pulmonary function tests that 1999 is the year intended.

[12] There does not appear to be a page 688 of record in CX G1.

tapering off the Prednisone, that she had stabilized with a DLCO at about 48% predicted, and that she was off supplemental oxygen and gradually increasing her exercise. (***Id.*** p. 680).

Additional records from George Washington University Hospital relate to Claimant's treatment in 1999. They indicate that she was seen on March 29, 1999 for acute interstitial lung disease by **Dr. Morgan Delaney**, who noted that the Claimant's improvement with Prednisone raised doubts as to whether she had UIP, noted that she was "now off the steroids and says she feels well" although she wheezed when she coughed or laughed, opined that the UIP "has not followed the typical clinical course, and this raises the question whether this is the correct diagnosis", and suggested that she might have asthma. (CX G1, p. 677, 678.) **Chest x-rays** taken on April 7, 1999 were consistent with pulmonary fibrosis, as discussed below.

Claimant was treated on an outpatient basis by **Dr. Aamodt** for Dr. Delaney on September 13, 1999, when she was noted to have complained of dyspnea to Dr. Greenlee in New York the preceding week and it was noted that she was "still smoking." (CX G1, p. 676.)

Pulmonary function test reports appear for June 17, 1998 (with efforts technically inadequate to interpret data); August 11, 1998 (showing reduction in diffusion capacity but improvement in total lung capacity); September 21, 1998 (showing reduced diffusion capacity and terminal air flow); December 9, 1998 (no printed interpretation); April 7, 1999 (showing reduced diffusing capacity); [date obscured][13] (mild obstructive ventilatory defect without significant bronchodilator response, reduced diffusion capacity, normal arterial blood gas). (CX G1, p. 711-12, 709-10, 706-07, 704-05, 695-96, 697-98.; ***see also*** p. 679 (summary).

Chest x-rays were taken during various hospitalizations and outpatient visits. An x-ray taken on June 8, 1998 was interpreted by **Jay M. Feder, M.D.** as showing "bilateral mixed pulmonary interstitial and air space disease, unchanged," one taken on June 9 was interpreted as showing "[i]nterval improvement in pulmonary interstitial edema" but "[p]ersisting diffuse bilateral air space disease"; and one taken on June 10, 1998 was interpreted by Dr. Feder as showing a "decrease in density of the lungs bilaterally consistent with resolving inflammatory process" and "[i]nterval improvement in edematous or inflammatory change within the lungs bilaterally". (CX G2, p. 891, 894, 917-19). An x-ray taken following the lung biopsy on June 10, 1998, was interpreted by Dr. Feder as

[13] The values are the same as the December 1998 test, but the weight listed in almost 30 pounds off. (***Compare*** p.704 ***with*** p. 697).

showing "[b]ilateral pulmonary interstitial changes" "with interval increase from earlier"[14] and the impression was "[s]tatus post open lung biopsy with insertion of right chest tube and "[i]nterval increase in pulmonary interstitial edema," and Dr. Feder made similar findings (although noting more hypoventilation) on the June 11, 1998 x-ray (CX G1, p. 585-86). A chest x-ray taken at admission to the Emergency Room on November 2, 1998 noted clear and well expanded lungs without evidence for focal air space disease and the impression by **Sathy V. Bhaven, M.D.** and **Barry M. Potter, M.D.** was that there was "[n]o acute disease." (***Id.*** p. 449-50).[15] A chest x-ray taken on November 30, 1998 was interpreted by **Nishita N. Kothary**, M.D. and **Kaaren N. Bergquist**, M.D. as showing no evidence of air space disease, pleural effusion or pneumothorax" and "[n]o acute disease." CX G2, p. 897). Chest x-rays taken on April 7, 1999 were interpreted by **Jocelyn A. Simon, M.D.** and **Edward M. Druy, M.D.** as showing coarse interstitial markings identified bilaterally within the bases" "consistent with the patient's known diagnosis of pulmonary fibrosis." (CX G1, p. 694, 699.)

Additional Treatment Records

James H. Graeter, M.D. and **Peter A. Moskovitz, M.D.,** orthopedic surgeons, treated the Claimant for her back, right and left hip, and left arm conditions. (CX G2, p.784-823). Dr. Graeter performed a right hip total arthroplasty on October 14, 1998 and a left ulnar nerve transposition on March 3, 2000. (***Id.***, p. 786-88, 811).

Richard Edelson, M.D., a neurologist, treated the Claimant for her herpes zoster (shingles) and complications relating to its treatment. (CX G3, p. 925-36).

Records from **Vienna General Hospital** relate to Claimant's treatment for a heart condtion. (CX G3, p. 937-1024).

Records from **Bruce Milzman, D.D.S.** relate to Claimant's dental treatment. (CX G3, p. 1025-32).

Medical Opinion of Randall P. Wagner, M.D.

As noted above, **Randall P. Wagner, M.D.**, who is board-certified in internal medicine and the subspecialties of pulmonary diseases and critical care medicine, treated

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[14] The earlier x-ray report does not appear to be of record.

[15] No fibrosis was noted on the two November 1998 x-ray interpretations. However, the April 7, 1999 x-ray report made findings of interstitial markings consistent with pulmonary fibrosis and indicated that November 30, 1998 films were reviewed, but did not comment upon any change in findings (CX G1, p. 449-50, 694, 699; CX G2, p. 897).

the Claimant for her pulmonary condition. (CX G2, p. 721-84; CX J Ex. 1). He is also the Claimant's expert witness and his de bene esse deposition was taken on October 26, 2000. (CX J). At his deposition, he stated his opinion that the Claimant had idiopathic pulmonary fibrosis attributable to her exposure to environmental pollutants in Kazakhstan. (***Id.***)

Dr. Wagner noted that by history Claimant's decline in respiratory status began in February or March of 1998 while she was in Kazakhstan, as reflected by her inability to climb the stairs to her apartment, but that she compensated by lifestyle modification (e.g., she used the elevator). (CX J, p. 13, 95). Dr. Wagner also noted that she had an intercurrent diarrheal illness but opined that there was no relationship between that disease and Claimant's pulmonary fibrosis. (***Id.***) In Kazakhstan, she was treated for her diarrhea with Flagyl (Metronidazole), but he did not know what else Dr. Basset gave her. (***Id.*** p. 94). When she returned to the United States, her pulmonary symptoms continued to progress, bringing her to George Washington, where she was treated by Dr. Wagner. At that time, she had diffuse air space opacities, leading to complete respiratory failure and its treatment with Prednisone, with its resultant complications, until March 1999, when the Prednisone was stopped altogether. (***Id.***, p. 14). The initial dose was three days of 1,000 milligrams per day, which is "organ transplant rejection doses." (***Id.***, p. 19). At the time Claimant was treated, the standard for treatment of idiopathic pulmonary fibrosis or cryptogenic fibrosing alveolitis was "six months of a milligram per kilogram of Prednisone with a taper at that point." (***Id.***, p. 18-19). When Claimant was down to 20 milligrams per day, Dr. Greenlee agreed to operate on her hip, which had progressed "quite quickly" when she was on the Prednisone, because at a higher dose, there would be delay wound healing with increased rates of infection, as well as loss of calcium. (***Id.***, p. 20-24).

Initially, Dr. Wagner diagnosed interstitial fibrosing pneumonitis, which is the same illness as pneumoconiosis, cryptogenic fibrosing alveolitis, and usual interstitial pneumonia. (***Id.*** p. 17). Fibrosis means scarring due to collagen deposition. (***Id.*** p. 32). The scarring is permanent. (***Id.*** p. 33).

On cross examination, however, Dr. Wagner conceded that Claimant would no longer qualify under the current ATS guidelines for usual interstitial pneumonia (UIP) and that her current diagnosis would be "organizing pneumonia with residual fibrosis." (***Id.*** p. 61, 106-12). The term UIP is now reserved for those people who have progressive decline. (***Id.*** p. 107).

Dr. Wagner stated his understanding that environmental conditions in Kazakhstan were notorious both in the pulmonary community and the nonmedical community, due to a lot of heavy industry, and he first learned of the problem from a friend who did tuberculosis work in Eastern Europe. (***Id.***, p. 17; 90-91). He also reviewed the CIA Fact Sheet on Kazakhstan. (***Id.***, p. 79).

When asked his medical opinion as to the cause of the pulmonary fibrosis which he diagnosed, he testified:

> A. Well, I think that her illness began in Kazakhstan as a consequence of the environmental conditions in Kazakhstan. . . .

(***Id.*** p. 18; ***see also*** p. 140). He indicated that he would have the same opinion whether the condition was UIP or organizing pneumonia with residual fibrosis. (***Id.*** p. 62). However, he could not identify the etiological agent responsible, and he conceded that he would not be able to state with a reasonable degree of medical certainty that UIP was caused by a particular agent. (***Id.*** p. 66, 149-51). If a cause were identified, it would no longer be idiopathic. (***Id.*** p. 67). Although stating his opinion to a reasonable degree of medical certainty, Dr. Wagner appeared to be using the term "reasonable medical certainty" to apply to a situation where there was less than a fifty percent likelihood, however. (***Id.*** p. 174-77). However, he later indicated that he had ruled out other possible etiologic factors. (***Id.*** p. 178-80).

When asked on cross examination whether he had determined another case of UIP was caused by environmental factors, he stated that "we don't know because we don't really know what the, the immunologic insult which leads to the inflammatory process" but that "[ultimately, you could say they are all caused by environmental processes, if they, if some things have been excluded, if viral infection has been excluded," and he noted that a group of people have familial pulmonary fibrosis. (***Id.*** p. 62). He determined that Claimant did not have a familial history and he indicated that viral illnesses could be excluded based upon the lung biopsies. (***Id.*** p. 63-65). Dr. Wagner also indicated that, although the disease was idiopathic, meaning that "the cause is not definitely known", there were other factors that put someone at risk for the disease, including smoking (which resulted in a twofold increased risk) and locale (with an increased risk in areas with industry, agriculture, or heavy pollution). (***Id.*** p. 65-66, 68-79). Later he mentioned certain antibiotics (such as nitrofurdation, which has been associated with pleural fibrosis and retroperitoneal fibrosis, but not pulmonary fibrosis). (***Id.*** p. 92-94). Parasites have not been implicated, but "could be"; the only parasite so far associated with lung disease is the lung fluke found in southeast Asia. (***Id.*** p. 94). Dr. Wagner defined a risk factor as "a cause that has not reached the next level of certainty." (***Id.*** p. 67). He agreed that Claimant's 40 pack year smoking history was significant as a risk factor. (***Id.*** p. 70-71). However, he later indicated that smoking was probably not the causative factor, because the condition did not flare up when she was tapered off the steroids and had resumed smoking. (***Id.*** p. 84-85). Age is another risk factor (although not an independent one), and as people become older they are more likely to develop UIP. (***Id.*** p. 101-02). In the absence of collagen vascular diseases, the condition is "actually a bit more common in men." (***Id.*** p. 102-03). Certain antidepressants, known as tricyclics, are also risk factors, and he did not know whether she was exposed to tricyclics; she was taking Prozac, which is not a tricyclic. (***Id.*** p. 103-04). He has not seen any of the other drugs she was on (Voltar, a nonsteroidal

antiinflammatory agent; Crimpro, a combination of Premarin and progesterone; Percodan, an oxydodone and aspirin; or Prozac, an SSRI) as being associated with UIP. (***Id.*** p.106).

Dr. Wagner referred to a number of studies, including a study finding an increased incidence in industrial areas as compared with other areas in the United Kingdom, a Japanese study finding an increased incidence in rural areas as compared with other areas, an occupational study finding an increased incidence in hairdressers, and a Mexico City study finding an increased incidence in outdoor shoe shine people (***Id.*** p. 71-78). Taken together, Dr. Wagner opined that these studies suggest that particulates in the air are best correlated with the risk. (***Id.*** p. 78). He was unaware of any studies for Kazakhstan, and he has never been there. (***Id.*** p. 79). Nevertheless, he advised Claimant not to return to Kazakhstan because of the potential risk. (***Id.*** p. 80-85).

When asked whether Claimant developed UIP in February or March 1998, when she first became symptomatic, Dr. Wagner said that he was "guessing that she probably was in the early stages of it" and he would "guess" that her immunologic insult started or began "in the few weeks to month, maybe six weeks before that time." (***Id.*** p. 96). However, he could not exclude the possibility that she had UIP before she went to Kazakhstan in November of 1997. (***Id.*** p. 97-98). Based on the degree of the total lung involved at the time of the lung biopsy, and the amount of inflammation (cellular component) as opposed to scarring (fibrotic component), he determined that it was most likely that the onset was when she was in Kazakhstan. (***Id.*** p. 97-101).

Dr. Wagner testified that, although they had been able to arrest the progression of her disease and Claimant was "still capable of getting around", she had some permanent impairment. (***Id.*** p. 18). Dr. Wagner opined that that impairment would probably not prevent her from working as a lawyer. (***Id.*** p. 145-46). At the time of the deposition, Claimant's diffusing capacity was down to 50% of normal or slightly less and it would be "forever abnormal." (***Id.,*** p. 26-27). That is not to say that she has lost half of her diffusing capacity, however. (***Id.*** p. 145). While the last bit of data indicated only age-related decrements in diffusing capacity, she is on a curve which parallels the normal curve, but is lower. (***Id.*** p. 28). Diffusing capacity is a measure of the ability of the body to salvage oxygen from the atmosphere and put it in the blood. (***Id.*** p. 27). Dr. Wagner explained that the observation by Dr. Friedman that Claimant's specific diffusing capacity had reached 75 percent of predicted in 1999 was not useful clinically, because that measurement only measures the health of the alveolar units and could be completely normal in someone who had lost a lung; in contrast, overall diffusing capacity would be reduced. (***Id.*** p. 29-32). Dr. Wagner opined that Claimant's reduction in overall diffusing capacity would cause her to be exercise limited for the rest of her life. (***Id.*** p. 30-31). However, in addition to the diffusing capacity reduction and restrictive lung disease, she has obstructive lung disease caused by her smoking, which would make the lung "look normal" on testing due to an increase in forced vital capacity and total lung capacity. (***Id.*** p. 31-32; ***see also*** p. 51-54).

It was Dr. Wagner's opinion that the Prednisone therapy impacted or aggravated the condition of Claimant's right hip because of its impact on bone density and acceleration of symptoms (pain). (***Id.***, p. 24-26, 128-30). The loss of bone density in Claimant's case was reflected by her loss of about a quarter inch of her femoral height. (***Id.***, p. 25, 123-27, 133). In Dr. Wagner's opinion, "her right hip is now not really an elective procedure anymore." (***Id.***, p. 24-26). Contrary to a statement he made in a letter of March 31, 1999, Claimant did not have avascular necrosis. (***Id.*** p. 120-24). Dr. Wagner saw the pathology report but not the x-rays. (***Id.*** p. 122). She did have preexisting arthritis. (***Id.*** p. 125).

Dr. Wagner also opined that the following conditions were caused or exacerbated by Claimant's Prednisone use, in addition to the right hip condition: (1) the left hip condition and probable need for left hip replacement, due to the same mechanism that aggravated the right hip condition (although he was unable to state that the association was more likely than not); (2) Claimant's herpes zoster or shingles, due to the decline in immunologic surveillance, and chronic pain syndrome and cellulitis, resulting from the herpes zoster; (3) ulnar nerve problems necessitating the March 2000 surgery, most likely related to the herpes zoster (although he conceded that there was a reasonable medical probability that the nerve problems were unrelated); (4) coronary artery disease/cardiac problems in Sarajevo (leading to angioplasty and stent placement in Vienna), resulting from increase in serum cholesterol levels and acceleration of the atherosclerotic process (although there was an equal chance coronary artery problems would have occurred anyway); (5) body fat and muscle composition changes, resulting in an egg-shaped appearance, including "moon faces" (big round faces) and "Buffalo hump" (protuberance between shoulder blades combined with shrinking of the extremities); (6) Claimant's plastic surgery for the "moon face"; and (7) dental problems due to the immunosuppressant effects on oral health. (***Id.*** p. 33-49, 138-39, 151-59, 162-74). He agreed that Claimant was temporarily totally disabled from June 1998 until she returned to work; from March 3 to 21, 2000; from May 12, 2000 to June 8, 2000; and from September 9, 2000 and continuing as a result of these conditions. (***Id.*** p. 27). He also opined that in the future Claimant could develop other long term effects of Prednisone use, including osteoporosis, hair loss, and cataracts. (***Id.*** p. 50).

Medical Opinion of Carl B. Friedman, M.D.

Carl B. Friedman, M.D., a board-certified internist, reviewed Claimant's medical records on behalf of the Employer and acted as Employer's expert witness. (EX 1; EX 2). He prepared a report dated July 30, 2000. (EX 1). Dr. Friedman's de bene esse deposition was taken on October 25, 2000. (CX K).

In Dr. Friedman's report of July 30, 2000, inter alia, he opined that the Claimant's diagnosis was usual interstitial pneumonitis or idiopathic pulmonary fibrosis; that risk factors for the disease included viral infections, environmental factors (such as exposure to

metallic, wood, or inorganic dusts or organic solvents in an indoor environment), cigarette smoking, antidepressants, genetic factors, immunological factors associated with autoimmune deficiencies, myasthenia gravis, celiac disease, and chronic active hepatitis; that "[a]t the present time there is no specific cause and effect relationship that can be ascribed to the development of idiopathic pulmonary fibrosis"; and that "[i]t would be unlikely for [Claimant] to have an industrial exposure that would cause an increased risk for development of usual interstitial fibrosis or IPF in her position as a legal specialist." (EX 1; EX 2). He indicated that notwithstanding the risk factors, for "a large percentage with pulmonary fibrosis, the etiology is unknown." ***Id.***

At his deposition, Dr. Friedman testified that the diagnosis of usual interstitial pneumonitis (or idiopathic pulmonary fibrosis) was nonspecific. (CX K at 8, 40). Dr. Friedman further testified:

> . . . . . In this case, the cause is not defined by the histology. We can't define what happened. So the cause has got to be defined by the rapidity of the onset, her exposures, whether it was industrial exposures, environmental exposure, a drug exposure, a trauma, an inhalation exposure, or an infectious disease exposure. All of those modalities could be responsible for her to have this change in her X-ray.
>
> And even above that, immunological changes within the body, such as in sarcoidosis and rheumatoid arthritis and lupus, these changes occur without any external environmental contributions. You just develop this as an overall disease process.

Id. at 8-9. Dr. Friedman indicated that unless these conditions are treated early, there could be a fixed pulmonary fibrosis that never goes away. ***Id.***

Dr. Friedman testified that possible causes for Claimant's pulmonary condition were antidepressants, antibiotics (such as nitrofuradantin, sulfur medication, and salicylamide) and antimetabolites. ***Id.*** at 18-19. He further testified that cigarette smoking did not cause the condition, but it was a risk factor than increased her risk by a factor of 2. ***Id.*** at 17.

Dr. Friedman noted the following that he found to be of significance in Claimant's case:

(1) Even though Claimant was a cigarette smoker, she did not come down with acute bronchitis, which would be expected if she had been exposed to a heavily polluted area. From that, he concluded that an industrial exposure was not responsible. ***Id.*** at 13-14.

(2) Based upon the history provided, Claimant's fibrosis did **no**t develop slowly (over a period of six or seven months) but developed over a period of weeks. ***Id.*** at 14.

(3) Claimant was exercise limited or she would have discovered the condition earlier. ***Id.*** at 14-15.

Dr. Friedman stated his opinion that Claimant's pulmonary fibrosis was not caused by inhalation of pollutants or internal hazards in Kazakstan because "histologically, no etiological relationship could be made" and "[i]t's idiopathic why this happened." ***Id.*** at 13-14. Later, he explained:

> Q. Now, you say you don't or most likely were not going to know the cause. Are there things that we can factor out that we've already factored out as non causes?
>
> A. In my opinion, with reasonable medical certainty, since she didn't have an industrial exposure in the city, that this will not induce pulmonary fibrosis, after a six-month exposure to whatever she was exposed to.
>
> Now, we do know, we do know epidemiologically that there are a higher percentage of people who develop this disease that has a risk factor of metallic fumes, of industrial fumes, but his occurs in people who have an industrial exposure, not a casual street or home exposure to the city as a whole.

Id. at 20. When further questioned about the impact of Claimant's environmental exposure, he went on to say: ". . . I rule it out because she didn't have an industrial exposure." ***Id.*** at 21; ***see also*** 40-47. On cross examination, he further stated that he could rule out the exposure because it was not an occupational exposure, which would involve a long period of exposure and high concentration of exposure. ***Id.*** at 76-77. He could **not** rule out a viral cause. ***Id.*** at 78. He also indicated that he would want a more complete history, including Claimant's drug use and type of exposure. ***Id.*** at 77.

Dr. Friedman also opined that the Claimant's right hip problems, leading to a right hip replacement, were unrelated to the Prednisone as they predated her assignment in Kazakhstan and were caused by osteoarthritis, not avascular necrosis. ***Id.*** at 21-25, ***see also*** 53-61. He similarly concluded that the left hip problems were unrelated, but was unable to rule out the association. ***Id.*** at 25-26, 71-72. Dr. Friedman also opined that the ulnar nerve problem was more likely caused by trauma, not herpes zoster infection, although the infection itself was related to Prednisone treatment, as steroids can enhance the development of shingles. ***Id.*** at 26-30, 65-67, 70-71.

On cross examination, Dr. Friedman admitted that he never met or examined the Claimant and that he was certified in internal medicine but not pulmonary diseases. ***Id.*** at 33. He also admitted that Claimant complained of exercise tolerance problems in February or March of 1998 and that such problems could have been related to the fibrosis. ***Id.*** at 35-38. He further indicated that Prednisone could cause body contour changes (including moon faces and buffalo hump); lipid abnormalities (including elevated cholesterol); imbalance in calcium, nitrogen and potassium and salt retention; fragile skin, bruising, and stretch marks; osteoporosis and osteonecrosis of bone ends; cardiovascular changes and congestive heart failure; psychoses; and infectious and immune changes (including increased susceptibility to infections and suppression of immune response.) ***Id.*** at 62-66. He also agreed that the high dose steroids could have elevated Claimant's cholesterol and possibly aggravated her coronary problems (obstructive coronary artery disease), but noted that smoking was another risk factor. ***Id.*** at 72-74.

Miscellaneous

As discussed above, I have admitted into evidence Claimant's Exhibit D ("CX D") (appearing in Binder A, pages 34 to 99), consisting of newspaper articles and research documents from the C.I.A. and United States Energy Information Administration sites on the world wide web. However, I found that Employer's objections (primarily, that the records relate to other parts of the former Soviet Union and not to Almaty, Kazakhstan, where Claimant was employed) would be considered in weighing the evidence. The evidence consists of:

(1) an undated newspaper article relating to high levels of pollutants (industrial wastes); a finding of lead, arsenic and cadmium poisoning in two thirds of the children; and high levels of congenital defects, central nervous system disorders, cancer, and other major diseases in Karabash, Russia, located in the foothills of the Ural Mountains, near Russia's southern border with Kazakhstan.

(2) an undated C.I.A. online Factbooks for Kazakhstan, which states:

> **Environmental–current issues:** radioactive or toxic chemical sites associated with its former defense industries and test ranges are found throughout the country and pose health risks for humans and animals; industrial pollution is severe in some cities; because the two main rivers which flowed into the Aral Sea have been diverted for irrigation, it is drying up and leaving behind a harmful layer of chemical pesticides and natural salts; these substances are then picked up by the wind and blown into noxious dust storms; pollution in the Caspian Sea; soil pollution from overuse of agricultural chemicals and salinization from faulty irrigation practices.

Almaty is shown near the border of Kyrgyzstan in the lower right hand (Southeast) corner of the map of this vast country of Kazakhstan, the second largest of the former Soviet republics, encompassing 2,717,300 square kilometers.

(3) December 1998 United States Energy Information Administration fact sheets on Azerbaijan (on the Caspian Sea, across from Kazakhstan) and for the whole Caspian Sea Region (which lies along Kazakhstan's western border, to the south), reflecting energy-related difficulties in that region.

(4) articles dated in December 1993, September 1992, September 1993, and November 1995 relating to radiation pollution in the former Soviet Union.

(5) an undated C.I.A. online Factbook for Kyrgyzstan, which lies to the south of Kazakhstan reflecting water pollution, water-borne diseases, and soil salinity from faulty irrigation practices in this largely agricultural republic of the former Soviet Union, and an undated "State of the Environment of Kyrgyzstan" report indicating pollution from pesticides, poisonous industrial waste, food wastes, and radioactive pollution.

Discussion

Establishment of Compensable Injury

According to the Act, an injury is defined as an "accidental injury or death arising out of and in the course of employment." 33 U.S.C. § 902(2). Under section 20(a), 33 U.S.C. § 920(a), it is presumed, in the absence of substantial evidence to the contrary, that a claim comes within the provisions of the Act. However, the presumption does not assist Claimant in establishing a prima facie case, which must be established before invoking the presumption. ***Devine v. Atlantic Container Lines, G.T.E.***, 23 BRBS 280 (1990). "[A] prima facie 'claim for compensation,' ... must at least allege an injury that arose in the course of employment as well as out of employment." ***U.S. Industries/Federal Sheet Metal v. Director, OWCP (Riley)***, 455 U.S. 608, 615, 14 BRBS 631, 633 (1982). As a general rule, in order to establish a prima facie case that injury arose out of employment, a claimant must establish that (1) the claimant sustained some physical harm and (2) working conditions existed, or an accident occurred, which could have caused the harm. ***See, e.g., Adams v. General Dynamics Corp.,*** 17 BRBS 258, 260 (1985). The theory of causation must be more than "mere fancy." ***Steven v. Tacoma Boatbuilding Co.,*** 23 BRBS 191 (1990). ***See also Champion v. S & M Traylor Bros.,*** 690 F.2d 285 (D.C. Cir 1982); ***Wheatley v. Adler,*** 407 F.2d 307 (DC Cir. 1968). After the prima facie case is established, a presumption arises under section 20(a) that the employee's injury or death arose out of his or her employment.

Here, Claimant alleges that she sustained some harm (diarrhea and shortness of breath while overseas, leading to pulmonary fibrosis) and potentially causative working

conditions (her exposure to environmental pollutants, as evidenced by her observation of a cloud of dust over Almaty and State Department literature concerning pollution in Kazakhstan as a whole). For the reasons set forth below, I find that Claimant's allegations go beyond "mere fancy."

There are several Defense Base Act cases that address the issue of a claimant being exposed to certain risks overseas that he or she would not have otherwise encountered. In ***O'Leary v. Brown-Pacific Maxon, Inc.,*** 340 U.S. 504, 507 (1951), when an employee drowned while attempting a rescue in a recreational area for employees in Guam, the Supreme Court found that the Act applied and stated: "All that is required is that the 'obligations or conditions' of employment create the 'zone of special danger' out of which the injury arose." However, in ***Gillespie v. G.E. Co.,*** 21 BRBS 56 (1988) ***aff'd mem.*** 873 F.2d 1433 (1989 1st Cir.), the Benefits Review Board found that, where no evidence showed that the activity causing death (asphyxiation during autoerotic activity) was related to conditions created by the overseas job (notwithstanding the administrative law judge's finding that he was engaged in recreational activity due to separation from his spouse and family), the "zone of special dangers" test was not met. Reading these cases together, it would appear that injuries resulting from Claimant's exposure to air pollution while overseas would be covered while injuries due to her smoking would not be covered, even if the illness were first manifested while she was overseas.

As Claimant has noted, the "zone of danger" test and/or the section 20(a) presumption has been applied to establish entitlement to benefits when an employee contracted diseases overseas or as a result of exposure overseas. ***See, e.g., Travelers Insurance Company v. Donovan,*** 221 F.2d 886 (D.C. Cir. 1955) (Red Cross employee with tuberculosis resulting from exposure in Kyoto, Japan).

There are also several Longshore cases that specifically address the issue of occupational disease resulting from exposure to toxic substances in the work place. Typically, such a case involves exposure to a recognized toxic substance (such as asbestos) and a disease or condition etiologically related to that substance (such as asbestosis or lung cancer). ***See, e.g., Kiev v. Bethlehem Steel Corp.,*** 16 BRBS 128 (1984) (where asbestos exposure and cancer established, presumption found to be applicable but rebutted); ***Romeike v. Kaiser Shipyards,*** 22 BRBS 57 (1989) (pleural plaques caused by asbestos exposure found to constitute "harm"). While the instant case is somewhat unusual, in that Claimant has not identified a specific etiological agent that she claims to have caused her pulmonary fibrosis, some analogous cases have found the presumption to be applicable:[16]

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[16] Certain of these cases applied the now defunct "true doubt" rule (***see Director, OWCP v. Greenwich Collieries***, 512 U.S. 267, 28 BRBS 43 (CRT) (1994)).

1) In ***Januszewicz v. Sun Shipbuilding & Dry Dock Co.,*** 22 BRBS 376, 1989 WL 245314 (1989), the Benefits Review Board ("Board") found that the claimant had established a prima facie case, sufficient to invoke the presumption, by showing exposure to industrial pollution at work (dust, fumes and smoke from welding, sandblasting and painting) and a respiratory impairment (chronic chest congestion and shortness of breath, reflecting an aggravation of a preexisting pulmonary condition). There was no rebuttal.

2) In ***Devine v. Atlantic Container Lines, G.I.E.,*** 23 BRBS 279, 1990 WL 284049 (1990), a prima facie case was established by a showing of exposure to certain toxic chemicals (including T-amylamine and PCB's which were leaking from broken drums in a shipyard and creosote treated telephone poles stored on the docks) and a doctor's testimony and report opining that the claimant's cancer of the distal bile duct and papilla of Vater were work related. However, the Board vacated the administrative law judge's finding that rebuttal had not been established by the opinions of two doctor finding the link to be improbable based upon their professional assessment of the current available scientific evidence.

3) In ***Sinclair v. United Food & Commercial Workers,*** 23 BRBS 148, 1989 WL 245251 (1989), the presumption was applied to the issue of causation when the claimant, a commercial artist, alleged that her exposure to chemicals in the work place (such as n-hexane in Bestine, a thinner) caused her to experience headaches, fatigue, chest and stomach pains, dizziness, and other symptoms and aggravated her preexisting psychiatric condition, making it impossible for her to work around chemicals. The Board found the presumption to apply to the psychiatric condition as well as the physical symptoms and held that the claimant did not need to prove a causal connection between the physical symptoms and aggravation of her psychiatric condition; all she needed to show was "the existence of working conditions which could conceivably cause the harm alleged." The Board also affirmed the finding that the presumption had not been rebutted.

4) In ***Stevens v. Tacoma Boatbuilding Co.,*** 23 BRBS 191, 1990 WL 284079 (1990), the Board found the presumption applicable where the claimant alleged that the decedent's exposure to paint chemicals (specifically, Tributylten [TBT]) lowered his resistance to disease, based upon the testimony of an occupational medicine specialist, and led to a rare degenerative brain disease (Jakob-Creutzfeldt disease), which has a viral etiology, by making him more susceptible to the disease or hastening its development. The Board found that this theory went beyond "mere fancy" and that it did not need to address the rebuttal issue in view of its finding that "the administrative law judge correctly weighed the evidence of record, properly resolved the close question of causation in favor of claimant, and, thus, properly determined that claimant is entitled to compensation benefits under the Act due to decedent's death."

5) In ***Peterson v. Columbia Marine Lines,*** 21 BRBS 299, 1988 WL 232763 (1988), the Board agreed with the administrative law judge that the presumption was

applicable when a claimant developed harm (chest pain) and alleged hypersensitivity caused by exposure to a variety of chemicals (including DD soil fumigant, vapom, telon 2, telon 7, fertilizers, and gasoline) over a period of years, supported by an allergist's opinion, even though the doctor could not identify the specific chemicals which produced his hypersensitivity. The Board went on to affirm the administrative law judge's finding that, although the presumption had been rebutted, the claimant had established that his disability was work related based upon all the evidence.

6) In ***Stevens v. Todd Pacific Shipyards,*** 14 BRBS 626 (1982), in a split decision, the Board found the presumption to be applicable to a grinder/burner who was exposed to high concentrations of various industrial dust particles and later developed industrial bronchitis (which resolved) and sarcoidosis, even though the sarcoidosis was deemed to be of unknown etiology. The majority found that the employer's proof, which consisted of expert medical opinion that the cause was unknown and proof that the disease occurs naturally, fell short of establishing rebuttal.

See also Champion v. S & M Traylor Bros., 690 F.2d 285, 15 BRBS 33 (D.C. Cir. 1982) (emotional trauma and aggravation of preexisting asthma by exposure to dust and fumes from construction in a subway tunnel); ***Woodside v. Bethlehem Steel Corp.,*** 14 BRBS 601 (1982) (decedent, a painting specialist, had chronic obstructive pulmonary disease which may have hastened his death and had been exposed to various substances at work which could have caused it). The preponderance of cases clearly suggest that the presumption is broad and may be invoked notwithstanding uncertainty as to the exact hazardous substance involved when a claimant is exposed to more than one toxic substance. They also show that, where a disease has a viral etiology, exposure to a toxic agent which facilitates infection with the virus is sufficient to invoke the presumption.

On the other hand, there are cases which suggest a more stringent burden for claimant to establish occupational exposures which could have caused the alleged harm. In ***Wendler v. American National Red Cross,*** BRB No. 93-0423 (May 29, 1996) (unpublished),[17] the Board affirmed the administrative law judge's finding of no prima facie case when the claimant alleged chemical hypersensitivity due to Agent Orange exposure but failed to show proof of agent orange exposure or any objective physical symptomatology showing herbicide exposure when she was employed in Korea for the Red Cross. Of note is the fact that the claimant was able to show that there was Agent Orange in Korea at the time she was employed there but her testimony that she was present at the location in Korea where the Agent Orange was applied was found to be not credible. Similarly, in ***Lacy v. Four Corners Pipe Line,*** 17 BRBS 139, 1985 WL 5352 (1985), where the claimant developed hepatitis allegedly caused by toxic chemical exposure (which made her susceptible to the hepatitis virus), the Board remanded for a

[17] This decision is available through the Benefits Review Board link on the Office of Administrative Law Judges website (www.oalj.dol.gov).

determination whether claimant had met her burden of establishing exposure to potentially toxic chemicals during the latent period for the disease. The significance of that decision is the requirement that the claimant not only establish exposure to a potentially causative toxic agent but also show that such exposure was within the recognized latent period for the disease. Also, in ***Blue v. CR Industries,*** 1989-LHC-2564 (May 1, 1992), the administrative law judge found there was no acceptable medical evidence to support a finding of a relationship between fatty tissue buildup and bulk phosphate fertilizers, despite claimant's allegation of exposure to various chemicals and compounds.

The instant case is similar to ***Wendler***, which also involved overseas employment, in that Claimant cannot establish that hazardous chemicals or other pollutants appeared in the specific area where she was employed. However, Claimant's own testimony establishes that she was exposed to a "cloud of dust" by her assignment to Almaty, and there is no evidence showing that the dust was free of harmful pollutants. While not specific to Almaty, the State Department materials show that there were areas of pollution in Kazakhstan and these materials are corroborative of Claimant's testimony. There has been no showing that the air in Almaty was somehow purer than the rest of the country. Dr. Wagner testified that at least one of the epidemiological studies relating to idiopathic pulmonary fibrosis, in Mexico City, showed an increased incidence of the disease among outdoor shoe shiners who were exposed to air pollution. Moreover, a careful reading of ***Wendler*** reveals that the result was premised in large part upon the availability of evidence pinpointing the exact area in Korea that Agent Orange was present combined with the lack of credibility of the testimony of the claimant in that case. In the instant case, in contrast, the Claimant was a credible witness and, as noted above, her testimony was corroborated.

Turning to the issue of onset and latent period (***see Lacy, supra***), Claimant's physician, Dr. Wagner, believed that the causative agent for her pulmonary fibrosis dated to the time of her employment in Almaty, based upon her complaints of shortness of breath there, the period of time that elapsed before she complained of acute symptomatology, and the degree of active inflammation present in Claimant's lungs at the time of diagnosis. Dr. Friedman disagreed, based upon the lack of a history of acute bronchitis when Claimant was in Kazakhstan, but he did not dispute that an exposure in Almaty would have been within the potential latent period for development of pulmonary fibrosis.

Finally, on the issue of whether there was medical evidence supporting a finding of an etiological relationship (***see Blue, supra***), I note that in the instant case, Dr. Wagner has opined that there was a causal relationship between the Claimant's exposure to air pollutants in Almaty, Kazakhstan and her later development of pulmonary fibrosis. His analysis of this issue and discussion of the epidemiological evidence concerning idiopathic pulmonary fibrosis, including the Mexico City study discussed above, is well reasoned. In addition, Employer's expert, Dr. Friedman, agreed that one of the risk factors for idiopathic pulmonary fibrosis was exposure to toxic agents in a work setting, but he

disputed that exposure to industrial pollutants based upon a casual street or home exposure could cause the disease. Although Dr. Friedman indicated that he had ruled out Claimant's environmental exposure as a cause, he indicated that he was uncertain as to the nature of her exposure. Thus, while pertinent to the merits of the case, Dr. Friedman's opinion does not alter the application of the presumption.

Based upon the above, I find that, although the case is a close one, the Claimant has proven that she sustained some harm (pulmonary fibrosis first manifested as shortness of breath) and potentially causative working conditions (exposure to air pollution in Almaty, Kazakhstan).

Rebuttal of Presumption

Once this presumption is invoked, the burden shifts to the employer to rebut the presumption with substantial countervailing evidence which establishes that the claimant's employment did not cause, contribute to, or aggravate his or her condition. ***James v. Pate Stevedoring Co.***, 22 BRBS 271 (1989); ***Peterson v. General Dynamics Corp.***, 25 BRBS 71 (1991). "Substantial evidence" means evidence that reasonable minds might accept as adequate to support a conclusion. ***E & L Transport Co. v. N.L.R.B.***, 85 F.3d 1258 (7th Cir. 1996). Employer must produce facts, not speculation, to overcome the presumption of compensability. Reliance on mere hypothetical probabilities in rejecting a claim is contrary to the presumption created by section 20(a). ***See Smith v. Sealand Terminal***, 14 BRBS 844 (1982). Rather, the presumption must be rebutted with specific and comprehensive medical evidence proving the absence of, or severing, the connection between the harm and employment. ***Hampton v. Bethlehem Steel Corp.***, 24 BRBS 141, 144 (1990). When aggravation of or contribution to a pre-existing condition is alleged, the presumption still applies, and in order to rebut it, Employer must establish that Claimant's condition was not caused or aggravated by his employment. ***Rajotte v. Genera Dynamics Corp***., 18 BRBS 85 (1986). In ***Stevens v. Todd Pacific Shipyards, supra***, the Board indicated that an employer could establish rebuttal by evidence "negating any potential relationship between sarcoidosis and claimant's industrial exposure," even if it could not prove an alternate cause. Once the employer has carried its burden of producing substantial evidence sufficient to justify a finding that a claimant's injuries were due to a cause unrelated to the workplace, the presumption is rebutted and is dropped from the case. ***American Grain Trimmers, Inc. v. OWCP,*** 181 F.3d 810 (7th. Cir. 1999) ***cert. denied,*** 528 U.S. 1187 (2000).

The Benefits Review Board discussed the issue of what constitutes adequate rebuttal in ***O'Kelley v. Dept. of the Army/NAF***, 34 BRBS 39 (2000), a case arising in the Eleventh Circuit, and found that substantial evidence was enough, even though the Board stated that the Eleventh Circuit "espoused a 'ruling out' standard when addressing the issue of rebuttal of the Section 20(a) presumption" (citing ***Brown v. Jacksonville Shipyards, Inc.,*** 893 F.2d 294, 23 BRBS 22 (CRT) (11th Cir. 1990)). ***O'Kelley*** involved a

golf course worker exposed to herbicides, fungicides and insecticides, who claimed aggravation of a neurological disorder. The employer's expert opined within a reasonable degree of medical certainty that the claimant's condition was neither caused by nor contributed to by his exposure to chemicals while working for the employer, but on cross examination he conceded that it was "possible" that the claimant's condition was work-related and he offered no opinion as to the cause for the worsening of claimant's condition. The Board found that the administrative law judge erred in finding this rebuttal to be inadequate. In so finding, the Board observed that "absolute certainty" is a difficult concept in the medical profession, and as the expert's reports and testimony "unequivocally express[ed] his opinion, rendered within a reasonable degree of medical certainty, that [the] claimant's condition [was] not work related," the employer had produced "evidence sufficient to sever the causal relationship between [the] claimant's employment and his harm." ***Compare Jones v. Aluminum Company of America,*** 2001 WL 467885 (BRB April 9, 2001) (testimony indicating that cancer was caused by a combination of two risk factors, with cigarette smoking as greatest risk factor with asbestos exposure as lessor risk factor, insufficient to establish rebuttal of asbestos as cause.)

Based upon the above, I find that the Employer has established rebuttal based upon the deposition testimony and report of its expert, Dr. Friedman. In this regard, Dr. Friedman opined that Claimant's exposure to industrial pollutants did not cause her pulmonary fibrosis, because exposure to toxic agents has been shown to be a risk factor for idiopathic pulmonary fibrosis in a work setting, but not based upon a casual street or home exposure. Furthermore, he indicated that she would have had a history of industrial bronchitis while in Almaty if her exposure to pollutants were the causative agent and he suggested that the onset would have been more gradual. Dr. Friedman concluded that he had ruled out Claimant's environmental exposure as a cause of her pulmonary fibrosis, and he stated his opinion to a reasonable degree of medical certainty. Medical opinion evidence based upon a physician's assessment of existing scientific and medical knowledge has been found to be adequate for rebuttal. ***See, e.g., Devine, supra; Stevens v. Todd Pacific Shipyards, supra.*** Moreover, the Board has found that where an expert has stated his opinion as to causation unequivocally, it is not necessary for an expert to eliminate the possibility that the cause asserted by the claimant was responsible or for him to identify an alternate cause. ***See O'Kelley, supra.*** Here, Dr. Friedman unequivocally stated his opinion and I find that it constitutes substantial evidence sufficient to rebut the presumption.

In view of the above, Employer has met its burden of production on the rebuttal issue, and the causation issue must be addressed on the merits.

Merits of the Causation Issue

As noted above, once the employer has carried its burden of producing substantial evidence rebutting the nexus between a claimant's injuries and the workplace, the

presumption is rebutted and is dropped from the case. ***American Grain Trimmers, Inc. v. OWCP, supra.*** It then becomes the burden of a claimant to establish causation by a preponderance of the evidence, as the claimant would be required to do for any of the necessary elements of the claim. ***See Director, OWCP v. Greenwich Collieries***, 512 U.S. 267, 28 BRBS 43 (CRT) (1994) (invalidating the "true doubt" rule, which gave the benefit of the doubt to claimants). Based upon consideration of all of the evidence of record, I find that the Claimant has failed to sustain this burden.

As noted above, in ***Wendler v. American National Red Cross,*** BRB No. 93-0423 (May 29, 1996) (unpublished), another Defense Base Act case involving overseas employment, the Benefits Review Board affirmed the administrative law judge's finding that the claimant had failed to establish a prima facie case of chemical hypersensitivity and other health problems due to herbicide exposure in Korea because she "failed to establish the existence of working conditions, specifically that she was exposed to Agent Orange or other defoliants which could have caused her present alleged conditions." The Board also found that "even if Section 20(a) were invoked, the record establishes the lack of a causal relationship is also supported by substantial evidence," based upon "overwhelming evidence" severing any connection between the claimant's conditions and her employment in Korea. Here, unlike ***Wendler***, I have found evidence sufficient to invoke the section 20(a) presumption based upon the alleged air pollution in Almaty ("cloud of dust") and Claimant's described symptoms ("shortness of breath"). Moreover, the rebuttal in the instant case does not rise to the level of that in ***Wendler***. Nevertheless, ***Wendler*** clearly suggests that, when overseas employment is involved, a vague description of exposure to unknown pollutants and nonspecific symptoms would be insufficient to establish entitlement to benefits.

Although, in the case before me, Claimant has produced the testimony of a highly qualified expert witness and treating physician, Dr. Wagner, to support her claim, there are nevertheless certain elements missing. Significantly, Claimant cannot identify a causative agent which was the likely cause of her pulmonary fibrosis. In fact, Claimant has relied upon evidence showing pollutants of various types, including radioactive waste, appearing over a large area, including various Soviet republics in general and Kazakhstan in particular, but there is no evidence of the specific pollutants appearing in Almaty. In addition, there is no evidence showing that any of the pollutants appearing in these vast areas, and specifically radioactive waste, have been associated with idiopathic pulmonary fibrosis. The studies identified by Dr. Wagner do not relate to radiation exposure, nor do they indicate any suspected agents that are known to be present in Almaty, in Kazakhstan as a whole, or, indeed, anywhere in any of the republics of the former Soviet Union. In addition, it is unclear that Claimant even has the type of disease that was the subject of these studies, as she does not have the classic form of UIP and would not satisfy its current definition. While the Board has held that an expert need not identify the specific chemical responsible for the expert's opinion to constitute substantial evidence establishing causation and causation has been established in cases lacking such

identification (***see Peterson, supra***), Dr. Wagner's opinion in the instant case is premised upon much vaguer evidence of toxic exposure than has given rise to valid claims in the past.

Considering the other cases discussed above involving vague allegations of toxic exposure in which causation was established, it appears that most either involved no rebuttal evidence (***e.g., Janusziewicz, Sinclair, Stevens v. Todd Pacific Shipyards***) or relied in part upon the now defunct "true doubt" rule (***e.g., Stevens v. Tacoma Boatbuilding***). An exception is ***Peterson***, which relied heavily upon the persuasiveness of the opinion of the claimant's highly qualified expert witness and treating physician, even though two other physicians had disputed his conclusions. That case involved a diagnosis of chemical hypersensitivity, which the claimant's treating physician found to be due to the cumulative effects of his 26 years of chemical exposure at work. While the specific cause was not identified, the group of chemicals included DD soil fumigant, vapom, telon 2, telon 7, fertilizers, and gasoline.

Here, in contrast, while Claimant has shown the possibility that she developed shortness of breath and pulmonary fibrosis as a result of her exposure to unspecified air pollutants in Almaty (based upon Dr. Wagner's deposition and other supporting evidence), Dr. Wagner cannot identify a single toxic agent or a group of toxic agents present in the air that were potentially responsible for Claimant's pulmonary fibrosis. Although Dr. Wagner pointed to facts suggesting that Claimant's condition arose when she was in Almaty, he could not definitely pinpoint the time at which the insult occurred which caused her fibrosis to develop in view of the idiopathic nature of the disease. Further, although he ostensibly ruled out other possible etiologies (such as viruses or durgs) that may have operated independently of her exposure to pollutants, he acknowledged that because Claimant's condition is idiopathic there is no known cause, only risk factors. Additional questions are raised by the fact that Claimant's diagnosis of UIP, while correct when made, would no longer apply under current criteria for the disease.

It is also unclear exactly what Dr. Wagner meant when he used the term "reasonable medical certainty." In this regard, he testified based upon reasonable medical certainty that Prednisone led to the claimant's herpes zoster and ulnar nerve condition. However, on cross examination, when discussing the ulnar nerve condition, he stated that "[t]here are different degrees of medical certainty" and that there could be other causative factors for her left elbow ulnar situation, also to a reasonable degree of medical certainty. (CX J p. 171-75). While Dr. Wagner indicated he was able to rule out other factors on the issue of the etiology of Claimant's pulmonary fibrosis, his use of the term in another context indicates that he may be merely referring to the most likely hypothesis.

In addition to the above, Dr. Friedman, while unable to definitively state the probable cause for Claimant's fibrosis, did not rule out a viral etiology and pointed to factors suggesting that air pollution in Almaty was not the cause. Specifically, he indicated

that the epidemiological evidence implicating industrial fumes only did so in cases of industrial exposure, not casual street or home exposure, and he noted that the Claimant did not exhibit the classic histological signs of heavy pollution exposure, such as acute bronchitis, and her fibrosis did not develop slowly, as would be expected. At the very least, Dr. Friedman's testimony further calls into question the hypothesis that inhalants in Almaty were the cause of Claimant's pulmonary condition.

At bottom, notwithstanding her reliance upon Dr. Wagner's testimony, Claimant's case relies upon speculation. It is unclear what substances Claimant was exposed to overseas or what type of pulmonary fibrosis she actually has. Thus, I find that, while Claimant has suggested a very plausible hypothesis for the cause of her idiopathic pulmonary fibrosis, she has not established causation by a preponderance of the evidence.

Conclusion

In view of the above, the Claimant has failed to establish that her pulmonary condition arose out of her employment and she cannot establish entitlement to benefits under the Defense Base Act. Accordingly, her claim must be denied, and it is unnecessary to consider the remaining issues.

ORDER

IT IS HEREBY ORDERED that Claimant Lois Cohen's claim for benefits under the Act be, and hereby is, **DENIED**.

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PAMELA LAKES WOOD
Administrative Law Judge

Washington, D.C.

Dated: May 24, 2001